Appendix F

F. Appendix F: Draft Flood Management Development Control Plans & Policy

This draft Flood Management Policy has been prepared based on the findings of the Greater Hume Flood Study and Floodplain Risk Management Study. It is recommended that Council use this draft policy in conjunction with the relevant legislation to produce a DCP that achieve Council's aims.

GREATER HUME LGA
DRAFT DEVELOPMENT CONTROL POLICY
FOR FLOOD PRONE AREAS

Flood Management

A flood is an overflow or accumulation of an expanse of water that submerges land. Floods are a natural and inevitable event that communities must learn to live with while minimising risks to public health and safety, property and infrastructure.

This section recognises that there are some flooding risks that require development controls and guidelines in order to reduce or eliminate their impacts.

Objectives

1. To maintain the existing flood regime and flow conveyance capacity.
2. To enable the safe occupation of, and evacuation from, land to which flood management controls apply.
3. To avoid significant adverse impacts upon flood behaviour.
4. To avoid significant adverse effects on the environment that would cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of the river bank/watercourse.
5. To limit uses to those compatible with flow conveyance function and flood hazard.

Controls

General

1. For proposed development, consideration must be given to such matters as the likely depth and nature of possible floodwaters, flood classification of the area (where applicable) and the risk posed to the development by floodwaters.
2. The applicant must demonstrate:
    i) That the development will not increase the flood hazard or risk to other properties and that details have been provided of the structural adequacy of any buildings works associated with the development with regard to the effects of possible floodwaters;
    ii) That the proposed building materials are suitable;
    iii) That the development is sited in the optimum position to avoid floodwaters and allow evacuation; and
    iv) That all electrical services associated with the development are adequately flood proofed.

3. All applications for development must be accompanied by a survey plan including relevant levels to AHD (Australian Height Datum). Consideration must be given to whether structures or filling are likely to affect flood behaviour and whether consultation with other authorities is necessary.
4. Compliance with flood management controls must be balanced by the need to comply with other controls in this DCP.

Controls for land uses on flood prone land identified on the DCP Flood Map

1. A site emergency response flood plan must be prepared in case of a PMF flood.
2. Adequate flood warning systems, signage and exits must be available to allow safe and orderly evacuation without increased reliance upon the State Emergency Service (SES) or other authorised emergency services personnel.
3. Reliable access for pedestrians or vehicles must be provided from the building, commencing at a minimum level equal to the lowest habitable floor level to an area of refuge above the PMF

SCHEDULE 1 – Flood compatible materials

Building component	Flood compatible material
Flooring and sub-floor	• Concrete slab on-ground monolith
	• Suspended reinforced concrete slab
Floor covering	• clay tiles
	• concrete, precast or in situ
	• concrete tiles
	• epoxy, formed-in-place
	• mastic flooring, formed-in-place
	• rubber sheets or tiles with chemicals-set-adhesive
	• silicone floors formed-in-place
	• vinyl sheets or tiles with chemical-set adhesive
	• ceramic tiles, fixed with mortar or chemical-set adhesive
	• asphalt tiles, fixed with water resistant adhesive
Wall structure	• solid brickwork, blockwork, reinforced, concrete or mass concrete
Roofing structure (for situations where the relevant flood level is above the ceiling)	• reinforced concrete construction • galvanised metal construction
Doors	• solid panel with water proof adhesives
	• flush door with marine ply filled with closed cell foam
	• painted metal construction
	• aluminium or galvanised steel frame
Wall and ceiling linings	• fibro-cement board
	• brick, face or glazed
	• clay tile glazed in waterproof mortar
	• concrete
	• concrete block
	• steel with waterproof applications

SCHEDUAL 1: FLOOD compatible materials (cont.)

Wall and ceiling linings (cont.)	• stone, natural solid or veneer, waterproof grout
	• glass blocks
	• glass
	• plastic sheeting or wall with waterproof adhesive
Insulation windows	• foam (closed cell types)
	• aluminium frame with stainless steel rollers or similar corrosion and water resistant material
Nails, bolts, hinges and fittings	• brass, nylon or stainless steel
	• removable pin hinges
	• hot dipped galvanised steel wire nails or similar

Electrical and mechanical equipment
For dwellings constructed on land to which this DCP applies, the electrical and mechanical materials, equipment and installation must conform to the following requirements:

Main power supply
Subject to the approval of the relevant authority the incoming main commercial power service equipment, including all metering equipment, must be located above the relevant flood level. Means must be available to easily disconnect the dwelling from the main power supply.

Wiring
All wiring, power outlets, switches, must be to the maximum extent possible, located above the maximum flood level. All electrical wiring installed below this level must be suitable for continuous underwater immersion and must contain no fibrous components. Each leakage circuit-breaker (core balance relays) must be installed. Only submersible type splices must be used below maximum flood level. All conduits located below the relevant designated flood level must be so installed that they will be self-draining if subjected to flooding.

Equipment
All equipment installed below or partially below the relevant flood level must be capable of disconnection by a single plug and socket assembly.

Reconnection
Should any electrical device and/or part of the wiring be flooded it must be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.

Heating and air conditioning systems
Where viable, heating and air conditioning systems should be installed in areas and spaces of the house above maximum flood level. When this is not feasible, every precaution must be taken to minimise the damage caused by submersion according to the following guidelines:

Fuel
Heating systems using gas or oil as fuel must have a manually operated valve located in the fuel supply line to enable fuel cut-off.

Installation
Heating equipment and fuel storage tanks must be mounted on and securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks must be vented to an elevation of 600 millimetres above the relevant flood level.

Ducting
All ductwork located below the relevant flood level must be provided with openings for drainage and cleaning. Self-draining may be achieved by constructing the ductwork on a suitable grade. Where ductwork must pass through a water-tight wall or floor below the relevant flood level, a closure assemble operated from above relevant flood level must protect the ductwork